U.S. Department of Agriculture
Office of the Secretary

240

A NATIONAL STRATEGY FOR RURAL CONSERVATION :

To many people, it may seem an anomaly to invite a scientist, whose life is involved with never-ending change, to deliver a keynote address at a conference on conserving rural resources, rural values, and a rural quality of life.

I assure you there is nothing contradictory about it. While advances in science and technology have transformed American agriculture, making it the most productive in the world, they have also helped provide rural America with amenities that make it a much more inviting place to live--so much so, in fact, that the long outmigration from rural areas to cities has been reversed, with the population of many rural areas on the increase. Before the advent of REA electric and telephone lines and indoor plumbing and running water, you didn't hear quite so many city people talking about the joys of country life.

But if many people are attracted to rural areas today, it is also because of certain traditional advantages that persist there: a lack of congestion and the strains that go along with it; room for a half-acre vegetable plot or an orchard or a few animals; opportunities for nearby recreation; the chance to restore an old farmhouse; a more instructive environment for bringing up children. Not all people value rural life for the same reason, but many like it for one or more of the reasons I have mentioned.

Keynote address by Dr. Anson R. Bertrand, Director, Science and Education, U.S. Department of Agriculture, at the conference on Rural Conservation of the National Trust for Historic Preservation and National Association of Conservation Districts, at the Capital Hilton Hotel, Washington, D.C., June 13, 1980.

The trick, as our population increases, will be to keep rural America a pleasant and fulfilling place to work and live, while improving its capacity to grow the food, fiber, and timber on which we depend. Rural America is a place to live, but it is also where our agricultural plant is located.

The conservation of rural resources and communities is not going to be easy. It is a beginning, however, for so many of us now recognize that much worth saving in rural America is threatened and that something needs to be done about it. Perhaps during the next two days we can begin to agree on what should be conserved in rural areas. . . and what should be preserved. . . and what should be improved. Even partial agreement on what should be done will be a start.

I believe that there is an overriding need to conserve and improve in rural areas those basic natural resources on which life depends--our soil and water and forests. The continued availability of ample agricultural and forest resources is basic to maintaining our current standard of living. I commend the National Association of Conservation Districts and the National Trust for Historic Preservation for their foresight in calling this important conference.

Until recently, there was little public concern about the long-term capacity of our soil and water resources to meet our needs and those of many foreign markets. After all, during much of this century, we have been occupied in holding down farm production and taking land out of crops.

Today, however, we have come to see that there are limits to good farmland and water even in the United States. As domestic population rises, and export demand increases, there is growing uncertainty about our future land needs. Most people now realize that we can no longer afford to squander either land or water as if we had an unlimited drawing account in these two resources.

In the last 50 years, the population of the United States increased by about 97 million people to the 1979 level of 220 million. And it continues to grow rapidly. The Bureau of Census medium projection is that our population will grow by another 80 million over the next 50 years, to total about 300 million Americans by the year 2030. Many parts of the world, including those unable today to feed their own populations, will grow at an even faster rate.

There will not only be more of us, but we will be even more avid consumers than we are today, if we can imagine such a thing. Between 1929 and 1978, the Gross National Product quadrupled in terms of constant dollars. Projections see the GNP nearly quadrupling again by the year 2030 and disposable personal income tripling. This growth means that the Nation is faced not only with an additional 80 million people to be fed, clothed, and sheltered, but also with the demands of a population with much greater purchasing power than today. It is an alarming prospect for our renewable resources.

It is not a matter of demand for food alone, or even for more timber for houses, and pulp for paper. There will also be more skiing, more snowmobiles, more dirt-bikes, more camping, more cutting of firewood, (legal and illegal), more rural homesites and second homes. In considering American appetites, one recalls the hero of Saul Bellow's novel, Henderson, the Rain King, who was driven by a little voice that kept whispering, "I want, I want, I want . . ."

It doesn't take a prophet to look ahead and see that we cannot make rural America produce everything we want. We must make some choices. Not every want will be satisfied. This has been made clear to us in the Department of Agriculture, if it wasn't clear already, by several recent studies of our resources. In 1974, Congress enacted the Forest and Rangeland Renewable Resources Planning Act, or RPA, to provide a framework for comprehensive, long-range, and continuous planning for the Nation's forest and rangeland resources.

Three years later, RPA was complemented by the Soil and Water Resources Conservation Act of 1977, or RCA. This act established a similar framework for planning for nonfederal soil and water resources.

Both the RPA and RCA planning processes involve two distinct but related steps:

The first step is a comprehensive inventory and analysis of resource conditions, present and future uses, projected supplies and demands, and opportunities for improving those resources. In RPA planning, this is called the assessment; in RCA planning, it's an appraisal. If you put the two together, you have the most comprehensive and thorough evaluation ever done of the Nation's agricultural and forest resource situation and outlook.

The second step is to plan long-term conservation strategies for the Forest Service, Soil Conservation Service, and several other Department of Agriculture agencies.

In both RPA and RCA the planning process produces the program. And it is used by the Department of Agriculture, the Office of Management and Budget, and the Congress to plan and budget resource management programs.

The RPA assessment and RCA appraisal will also be used for long-term resource planning by other federal agencies, as well as state, local, and private organizations. In his 1979 environmental message, for example, President Carter directed the Bureau of Land Management to use the RPA assessment as the basis for its program involving the 480 million acres it manages.

The RPA and RCA findings make clear that demands on rural resources will continue to grow rapidly in the years ahead. If current trends persist, demand for timber will more than double by 2030; water consumption will increase by 60 percent, and demand for range grazing will rise by 40 percent.

Soil erosion will continue to be a problem, with adverse impacts on crop yields and water quality. We are currently losing some 4 billion tons of soil a year to all types of erosion, despite 47 years of federal soil conservation programs.

Prime farmland--our best farmland--is being converted to nonfarm purposes at the rate of about 1 million acres a year, along with 2 million acres of other rural land. If this rate of conversion continues for two or three decades, the quantity and quality of land needed for agricultural production will be seriously reduced. We also will have lost much of our land for growing specialty crops, like citrus and red tart cherries.

Our supply of irrigation water in many parts of the country is diminishing, even as irrigation is on the increase. The water table in central Arizona, for example, is falling at from 7 to 10 feet per year, and supplies are becoming limited in parts of the Southern Great Plains from overdrafts on the great Ogallala aquifer.

Wetlands, with their many values, including habitat for wildlife, are vanishing at the rate of about 300,000 acres a year.

The rate of technological progress in agriculture, which has meant tremendous increases in productivity during the last half century, is slowing down. We don't see anywhere near the great yield increases today that we saw in the 40's, 50's and 60's. And we see this leveling off, not only in the United States, but all around the world. At the same time, population is increasing and expectations are increasing.

As an agricultural scientist, I am deeply concerned over this technological slowdown, feeling as I do that it is unnecessary and represents a failure to assign the right priorities to agricultural research.

All these trends I have mentioned are ominous, but I do not want to be an alarmist. We are not facing a crisis today, nor do I believe we will face one tomorrow. With present crop production capabilities, we still have land looking for markets, and not markets looking for land.

I am saying that if we go on as we have, there is certain trouble down the road. If we take more good land out of farming, if our yields level off, if soil erosion continues unabated, if demand continues to increase--some-day we will run short of food and fiber. It may come first in a drought year, or when an unexpected crop disease takes its toll--something like Southern corn leaf blight of a few years ago or the stem rust that nearly wiped out our durum wheat even earlier. Secretary of Agriculture Bergland has called current trends "a collision course with disaster." But trends don't have to come true. These projections are nothing more than warning signals, and a wise nation can heed those warnings and take steps to turn things around.

How long have we got?

A recent report by the Presidential Commission on World Hunger states that unless the United States and other developing countries act now to increase long-range agricultural productivity, a global food crisis, worse than the present energy situation, is likely within the next 20 years.

The report warns that two successive years of bad harvests in any of the major grain producing nations could cause "widespread famine and political disorder" in poor countries, and "would severely disrupt a fragile world economy already weakened by energy shortages and rampant inflation." Other organizations, such as the United Nations Council on Environmental Quality, and World Bank, have issued similar warnings.

All this may come as news to a lot of Americans. Our Nation has been built on the premise of natural resource abundance and availability.

We have had temporary crises in the past, as a result of our reckless timber cut in the 19th Century and during the drought and Dust Bowl days of the 30's. We found ways to deal with those problems and move ahead. They were temporary set-backs in a generally unbroken line of progress.

It is true that our confidence in unlimited resources was shaken by the gas lines of the 70's, by the realization that OPEC had us over an oil barrel. But then again, people all around us seem not too concerned. We're doing all right this summer, they say. Prices are high, but we're getting the gas we need. Maybe it's true that our proven reserves of oil have declined by more than 25 percent since 1970 and our natural gas reserves by nearly a third, but we'll find some more. In America, many people believe, something always turns up.

Maybe it will. But we'd better not stake our future on it.

As you meet here this week, to begin to develop a national strategy for rural conservation that will meet the demands of the future, perhaps it would be well to emphasize a few basic principles, a few essential directions on which we can reach agreement.

One principle is that we accept our basic natural resources as finite and stop wasting them, abusing them, and diminishing them. I do not want to get into a debate with those economists who believe we have more than enough of agricultural land for the foreseeable future. I hope they are right. But my own arithmetic and common sense tells me that we had better take good care of what we have left. We need to spend less and save more.

I am convinced that the quality of life that future generations of Americans can enjoy will depend primarily on how well we manage and use our agricultural and forest resources in the years immediately ahead. We have the opportunity to influence our future--to engineer our development--through the choices we make.

A second principle we might agree on is that we do not know all the answers about resource conservation and that we had better get on with the job of research.

We still have a lot to learn about forest management and utilization of forest products.

We have not yet completed our audit of conservation tillage techniques, including no-till. (These are systems in which the residue from a previous crop is left in the field when a new crop is planted.)

We know that conservation tillage reduces soil erosion and that it appears to require less energy in the form of fuel. But conservation tillage depends heavily on the use of pesticides, particularly herbicides, and most of these formulations are energy intensive. We haven't yet finished our balance sheet on alleged energy savings.

We also are still looking at possible increases in insects, rodents, perennial weeds, and plant diseases under conservation tillage systems. And we still don't know enough about the impact of intensive pesticide use on the environment, and on water quality in particular.

We also need more research on soil. For example, we do not yet know the value of an inch of cropland soil. If we did, we might be investing far more in soil conservation than we are today.

Fundamental research in the agricultural sciences has received cyclic attention over the past 25 to 30 years. Our unusually productive agriculture has worked against us in making a case for additional funds. Nonetheless, the United States is lagging seriously in its store of basic information in the agricultural and food sciences. In terms of the total federal research effort, agricultural research is a smaller percentage today than at anytime in the past 40 years.

A third principle on which we might agree is that rural people need more information about resource management. They do not need government people to make their decisions for them, but they need to get research data (including government research data) promptly and in a form they can use. Helpful in this connection is the Renewable Resources Extension Act of 1978, which is designed to provide people with more resource information through the cooperative extension system.

A fourth principle is that it is a tragic waste of an irreplaceable natural resource to cover prime farmland with asphalt, concrete, or water. And in New England, the concern is with practically all remaining farmland...the whole rural landscape, if you will.

Many of you have followed the work of the National Agricultural Lands Study, which is jointly administered by USDA and the President's Council on Environmental Quality. The study is due for completion on December 31, 1980. Bob Gray, who is conducting an afternoon session later today, is the study director.

Those working on the study have already come up with projections termed "explosive" by editorial writers, showing the diminished acreage of prime farmland that will be left in each state by the year 2000 if current trends continue. For example, Massachusetts could lose more than half its prime farmland in 20 years. Florida and two other states seem likely to lose it all.

These are shocking statistics. They must be turned around, and soon. A few state and county governments are wrestling with the problem of how to preserve good farmland for agriculture. Effective programs so far have been few and far between.

A fifth principle we should be able to agree on is that our private forest lands need better management.

Most of the private forest land in the United States is located in the East, including many private commercial forests as well as farm woodlots and other holdings. The industry-owned forests are producing at only about two-thirds of potential, and the farmer-owned forests are not doing even as well as that. A large proportion of our future timber needs are going to have to come from these forests on nonfederal lands.

A sixth principle is that there will have to be more attractive incentives for land users to apply soil and water conservation to their operations. One thing made clear in the RCA process was that farmers cannot afford to absorb all the costs of installing and maintaining soil conservation systems. Part of the cost will have to be borne by the public if we are to maintain our resource base and its productivity.

A seventh principle is that adequate research and extension help and conservation technical assistance should be specifically directed to the needs of the small farm. Operators of small farms in the Northeast, for example, have told us that they need more specialized farm equipment; energy technology to make their farms self-sufficient; ways to make maximum use of small acreages; and higher yielding varieties that can be marketed earlier.

We are listening to small farm operators and doing something about their requests. SEA already has three Small Farm Research Centers, including one at Beltsville, Md., serving the Northeast, and one at Charleston, S.C., serving the Southeast. The third is located at Booneville, Arkansas. As in practically all our work, we are proceeding with small farm research in partnership with state experiment stations and the cooperative extension system.

There is another principle on which I hope we can agree. That one was set forth by President Carter in his Small Community and Rural Development Policy which he enunciated last December. A cornerstone of that policy, the President said, is "the coordination of federal, state, and local efforts to serve rural people and enhance their prospects for the future."

The President added that to achieve that coordination, "Federal officials must be constantly exposed to a range of rural experiences and information and brought into contact with those people who represent rural viewpoints and are working to meet rural concerns."

Those familiar with some earlier rural development efforts will probably agree that this reliance on local rural leadership is a healthy approach for Federal officials, who too often have talked when they should have been listening.

A notable exception is the USDA resource conservation and development program, under which local leaders of 190 multicounty areas are working to improve their local resources and economies under plans they themselves have developed.

Practical rural development programs, with local planning and leadership, State support, and adequate federal technical and financial assistance, are absolutely essential to the healthy growth and development of rural communities.

The final principle I would like to put forth with a nod toward the National Trust for Historic Preservation, is that we must not forget our past as we wrestle with the problems of the future.

I come from Texas, as some of you may know, and while the San Jacinto monument may be slowly sinking near Galveston Bay, I can assure you that the Alamo will stand as long as there is a Lone Star State.

There is much worth preserving in rural--and urban--areas today, from old houses to historic trees to unobstructed views of the landscape to rare and endangered species. I am all for such preservation.

William H. Whyte, Jr., in an address sponsored by SEA at the Trust's annual meeting last fall, ended his argument for the preservation of the busy city street with a plea for continuity--continuity "for the sense of where we are and where we've come from. There's our future."

Let's conserve that continuity in rural America, too.